**GENDER MAINSTREAMING AS A KNOWLEDGE COMPONENT OF URBAN PROJECT MANAGEMENT**

The concept «gender» is included in socially oriented urban projects at the level of a process of planning and designing. Gender planning assumes in gender planning the orientation of the process of creating gender justice, with users' spatial requirements coming to the fore and becoming the starting point for designing gender-sensitive planning. The integrated framework for gendering urban planning is developed and tested on the examples within the Ukraine context of green landscaping, neighborhood design projects.

**Keywords:** knowledge management, urban project, gender diversity, gender sensitive planning, gender mainstreaming, friendly urban space

**Introduction.** The Ukrainian industrial cities have been experiencing an infrastructure crisis. There are many abandoned large areas previously occupied by production sites. Conventional urban planning has been characterized by cities being divided into zones intended for specific activities, with houses, markets, and factories in separate locations. Nowadays places for the comfortable life of citizens should be the key issue in the urban environment instead of production sites and adjacent areas. The landscape of the contemporary city becomes the environment where human reproduction forms creating and deploying a human personality. The urban development strategy envisages the creation of good quality of life for all residents. The urban spaces are transformed into a field of possibilities for the formation of creative busy life of each of its inhabitants [1].

Increased attention to the needs and requirements of the citizens can be successfully implemented only if the various realities of life as a result of different requirements and needs of women and men are included in all products and services of the city. Gender and the city mutually influence and shape each other. Today, cities designed along these lines no longer conform to the reality of people's lives, both women and men [2].

Urban gender inclusion makes it possible to carry out investigations of urban spaces design from the perspective of the women and men needs. A gender perspective on design quality urban space has to focus on «gender +». It is not rigid categories of «women» and «men» but it notes the respect of residents in all their diversity.

The traditional urban spaces are planned from a supposed equality, which results in an unfair and uninhabitable for most people. Planning and organization of urban areas usually show gender blindness in the Ukrainian cities (equal opportunities for women and men in access to «urban areas»). There is gender asymmetry in the living city space, particularly in the way of providing the right to access to the «urban spaces». The gender-sensitive indicators of urban planning which might have a transformative impact on the beneficiaries' gender+ practices are proposed. The integrated framework for gendering urban planning is developed and tested on the examples within the Ukraine context of green landscaping, neighborhood design projects.
point in the development of concepts and models for the future of urban structures of space and settlement to meet the concepts and strategies of sustainable development. Applying a gender perspective to urban planning is essential for thinking, designing and cities considering the diversity of experiences and needs which the population has.

However, the gender approach is used by fragmentary, without reference to a system of quality indicators of gender diversity. That is a way the development of models to gender sensitive transform of «urban landscape» is important for the methodology of urban project management.

This article is aimed to present the construction of the gendered framework for urban design project management and to test it with examples within the Ukraine context.

Achieving this objective presupposes fulfilling the following tasks: – to determine the gender components on everyday life city residents; – to highlight the issue of including the gender parameters into the system of urban project knowledge.

Urban planning as a gender issue. The main proposition of international urban gender studies demonstrates the close connection between urban development and gender relations. There are many theoretical and practical works from different disciplines that incorporate gender perspective to urban studies. Social scientist V. Gutierrez [3] deals with «indicators» for urban living conditions of women and men. Her indicators are based upon gender-sensitive spatial analyses uncovering and making aware the androcentric reflex in spatial planning. To create a critical mass for the topic led to research of the European network «Gender, Diversity and Urban Sustainability (GDUS)» [4].

Moreover the handbook «Gender Mainstreaming in Urban Planning» contains a review of the vast practical experience in implementing the Strategy of Gender Mainstreaming made in Viennese city planning over the past 20 years. It [5, p. 5] determines: «Gender equality remains an important topic, as there are inequalities that are related to a person's gender. Gender mainstreaming, a strategy that is also prescribed by the European Union, aims to counter these inequalities. The objective is to take into account the living and working conditions of women and men in planning, implementing and evaluating measures. Only if we recognize and consider these differences can we avoid unequal treatment».

UN-HABITAT is an organization that works from a gender perspective and seeks to account for women's everyday life experience. This vision, inclusive with the rest of our society, considers the participation as an essential instrument in projects and sustainability as basic criteria of development [6].

Currently, emerging efforts exist of gendering evaluation in the field of urban planning and development. There are a diverse group of women architects and urban planners, interested in rethinking cities, neighborhoods, and architecture in order to eliminate gender discrimination [7]. They work to build cities that reflect the diversity of our society by creating inclusive spaces.

New perspectives and potentials are offered by the use of the concept «gender diversity» (gender+). Gender is grown historically and is socially constructed, and can, therefore be changed. Gender refers to socially and culturally dominated gender roles. Gender diversity includes the further differentiation including age, ethnicity, physical ability, sexual orientation, class etc. which is also social constructs and therefore changeable. Gender diversity means to consider and promote different skills, different resources and potentials of women and men in their diversity as equivalent.

The physical environment of the city has been presented by the different types of spaces, as it expresses ways to use existing locations of different gender groups. J. Beall [2, p. 11] said: «Stereotypical notions of nuclear families ± with male breadwinners journeying across town to work, and women as housewives caring for their children and elderly relatives in residential neighborhoods have never applied in some situations, and in others no longer apply. The separation of home, work, and leisure is being challenged in cities, as women and men work to transform the urban environments».

Perception of the city by different social groups depends on their position in it, and folds in the practical development of the urban environment, and fills it with new social values.

It is important that the city creates conditions for the everyday lives of women, especially for those who work and have small children. Cities have to offer qualitative spatial conditions for families to take into account the needs of parents (especially mothers) in child care. For example, women are more likely to use public transport, including traveling with a child in a baby carriage.

Women, regardless of whether busy career they have or those who are unemployed, single or those who have a family, continue to be responsible for most domestic tasks: childcare, care for the elderly in families, shopping for the family and so on. All these things put pressure on their daily lives. The city can improve the conditions of daily life for women by developing gender-sensitive infrastructure areas: recreation areas (gardens, parks), institutions of education, culture, healthcare institutions, shopping facilities and more. Also, the focus on urban areas where women have a sense of insecurity at different times of day should be determined. Therefore there is an urgent need for more specific spatial planning of cities because it is important to address discrimination against women.

Besides, it is crucial to question the «ideal» guiding principles in planning and the values underlying the planning philosophy with a view to gender equality [8]. Further work is needed to develop objective and easily usable tools.

Gender features of urban space visions. Urbanism defines a city as a place of mobility as a stream of everyday practices, and which distinguish cities between their repetitive phenomenological grounds [9]. The focus of localization in defining space depends on what person «scale presence» we are interested in. Town planning
represents the image of the town as experienced by its citizens and its visitors. The concept of urban space is created by a complex impression: location, size, relief items etc.

In summary, space – a place that is practiced. Thus, the street that was geometrically defined by planning, transformed into space by passers. At a time when a person moves in a particular segment of the street or riding on public transportation – impressions of the place will always be endowed with emotional connotations that can be transferred to the general attitude to the whole area around this point. Understanding of the city assumes the integration of two levels of urban space: on the one hand, there is the area of the city – buildings, squares and streets on the other – people who use all these elements in town and give them meaning. So the city as a complex entity that is experienced [10], requires alternative descriptions and maps (psychology geography) of urban spaces), including gender.

D. Parsons claimed that the city has always taken in conjunction with the emphasis on its personal live [11, p. 223]. In her study, she described Paris and London in the period between 1880 and 1940 years and demonstrated – what does it mean to be a woman in a city that is for her «most promising, sometimes unbearable, but never overpowering, providing a space in which woman can realize her identity and have her own author's voice» [11, p. 228]. Women were often stereotyped by a selective eye, «replacing women through various kinds of violence to the field of household, to the world of shopping, to the inner world of the sexual body».

Nowadays, women’s urban consciousness, experienced women who care about their daily chores becomes of crucial concern in urban planning.

For the formation of gender competence in the field of urban planning, municipal employees are offered special training [12, p. 28-29]. The author of this study was conducted gender training for municipal staff of Kharkiv and Chuguiv cities where gender mapping was applied. The idea of gender mapping is in taking the perspective of women and men. «Men Maps» trying to convey a dynamic image, to show the space that is absorbed by movement [13]. Thus, the use of transport mediates the relationship of time and space, as a result distance on the territory is starting to understand though temporal terms. Imaginary routes can stretch or shrink depend on the convenience of car travel.

Features of women urban space perception also could be explained by their specific social purpose, their involvement in reproductive labor (concern for others) [14, p. 33]. Women think about schools, hospitals, shops, recreation areas (parks).

Thus, the physical and institutional landscape of the city becomes part of the gender mapping. The town’s decision makers should plan holistically to ensure the appropriate and accessible local provision of:
- public services (post offices, schools, nurseries, hospitals, social services);
- cultural and sports centers (cinemas, theaters, auditoriums, libraries);
- recreational facilities (parks, after school clubs, youth centers).

Also, modern urbanism revives the tradition view of the city from short (street) distance. The way streetscape is designed and looked after can have an important impact on the lives of women, for example:
- good lighting of streets and public places can help women feel and be more secure;
- pavements should be clear of obstacles and wide enough for pushchairs, wheelchairs, etc.

The town can help women to balance their private and family lives with their professional life by planning services to facilitate their daily chores, for example: ensure the provision of childcare facilities and nurseries [15, p. 60-61].

Family-friendly city. An effective tool for identifying spatial pattern of gender sensitive placement of objects is social mapping. Visibility and accessibility for the end user are the central advantages of this method. Gender card can serve as a tool for monitoring urban processes.

Gender indicators for mapping can be:
- existence and development of infrastructure for the needs of the family: child care, as well as services such as healthcare and education, including kindergartens, playgrounds, and their location;
- family leisure places the age and gender features of different population groups.

Kyiv became the first city in Ukraine where the gender mapping was used to mark family-friendly public spaces (Fig. 1) on three categories:

«friendly to babies»: include ramps for carriages, lingering tables or rooms for child care;
«kid-friendly»: include children's rooms, chairs for children, children's menu, children's playgrounds (both external and indoors, etc.);
«friendly family»: institutions that include everything you need to stay with children of all ages.

Maps of family-friendly facilities make it possible to visualize the spatial arrangement of the basic elements of city’s social infrastructure and identify critical (in terms of gender equality) zones.
Gender marking through an interactive system is represented by the form «participatory design» [16], where each resident may be involved in the assessment and monitoring urban space.

**Gender aspects of children rights and interests in the urban infrastructure.** In recent years, a network of «Child-Friendly Cities», initiated by UNICEF has been created. Thus stimulating municipal authorities together with communities to change the urban environment, making it easier and safer for children [17, p. 73]. These cities committed to fulfilling children’s rights, including their right to:
- walk safely in the streets on their own;
- meet friends and play;
- have green spaces for plants and animals;
- live in an unpolluted environment.

Ukraine made the first steps along the way. An interest of the children has been identified as the top priority of local government. 17 cities have joined the Child-Friendly Cities Initiative (CFCI) to date: Bilopillya, Chervonohrad, Drohobych, Horlivka, Kharkiv, Korosten, Krolevets, Lebedyn, Liviv, Odesa, Romney, Shostka, Simferopol, Suny, Trostyanets, Vinnytsya, Yevpatoriya (Fig. 2). When children are playing, the street becomes their street, the square their square, the district their district, the city becomes their city and their domain. The city must create child-friendly places, as for boys and for girls.

Gender mainstreaming is not an end goal in itself but a means to achieve equality, this approach in urban planning is focused on the integration of gender equality at all stages of the planning process from the development of goals, planning of measures, implementation, and evaluation of them. In particular, it is about creating equal opportunities for female and male residents in the use of urban open spaces for residential and recreational physical activity.

Today in Ukrainian cities there are not enough open spaces for everyday and leisure-time physical activities of youth and families with children. Under open spaces, we understand everything from squares, parks, playgrounds, streets, to embankments, semi-public spaces within residential areas, etc.

Currently, in Ukrainian cities, there are not enough open spaces for everyday and leisure-time physical activities and young families with children. Most of the playgrounds and sports grounds were established in the 1990s, many of which are currently not suitable for use or destroyed. According to estimates of the Ministry of Regional Development, Construction, Housing and Utilities of Ukraine general need for playgrounds are 15,4 thousand units, and in sports – 22,7 thousand units.

As the starting point for gender analysis of urban planning in Ukraine «Program of landscape improvement of Kharkiv city» was chosen. (Kharkiv is the second-largest city of Ukraine, located in the north-east of the country. Its territory is 350 square kilometers, the population is 1,461,300. 70% of its residents live in about 10 thousand high-rise buildings, most of which were built during the Soviet era).

According to the Ukrainian state building codes [18, § 8.6.1], children playgrounds installed for children up to 12 years, and for teenagers – sports and play complexes. In general, children's playgrounds are gender-neutral (they are used equally by both boys and girls).

Municipality sets in the yard of the municipal property standard systems of five elements, which are suitable for children with different physical abilities on one play space. Although children's playground set of game elements in Kharkiv, in our opinion, is not optimal (slide, playpen, swing, rocker and table tennis) – Table 1. Such playgrounds are not equally targeted on all age groups (Fig. 3).

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**Table 1 – Match performance characteristics of gaming elements to children age**

<table>
<thead>
<tr>
<th>Element of children playground</th>
<th>Age of users (children)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17</td>
</tr>
<tr>
<td>Bitter</td>
<td></td>
</tr>
<tr>
<td>Playpit</td>
<td></td>
</tr>
<tr>
<td>Tennis table</td>
<td></td>
</tr>
<tr>
<td>Swing</td>
<td></td>
</tr>
<tr>
<td>Balancer</td>
<td></td>
</tr>
</tbody>
</table>

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**Fig. 2 – Child-Friendly Cities of Ukraine**
Ideally, the platform should benefit equally children of all ages. However, in the development of children playground projects often ignored the needs of parents of preschool children (under Ukrainian law children under 7 years must be accompanied by adults). Therefore, the space of the playground should be gender-sensitive in relation to the category of «parents of children up to 7 years» (necessarily include benches for adult supervision of children).

As for children 12+ category, their need for space for physical activity in the yards of multi-storey buildings significantly less satisfied than boys of their age. Available in Kharkiv, sports and playgrounds are focused to a greater extent on boys [19–20]. In recent years, improvement of sports and gaming systems implemented within the framework of Ukraine's preparation for the finals of the European Football Championship «Euro 2012», and now – «Eurobasket 2015». Existing (football) and planned (basketball) playgrounds courtyards of apartment buildings are oriented to a greater extent on the active leisure boys than for girls. Therefore, the focus of urban planning, as basic infrastructures for physical activities, must be taken into account equally as the need for preventive health, both girls and boys.

The policy of protection of rights and interests of children in urban infrastructure also includes the organization of the environment. The considering point of view of green spaces availability for children, who are living in Ukrainian cities, the following infographics is indicative (Fig. 4). In the «green» rating of Ukrainian Kharkiv and Odessa cities have low rates, according to international standards, for which 1,000 citizens should have to at least 2,1 hectares of green space.

![Fig. 3 – Degree of playground functionality used by children of different ages](image-url)

![Fig. 4 – Green spaces in cities of over one million in Ukraine](image-url)

Gender Mainstreaming in neighborhood planning. For gender fair urban planning it is proposed to consider the gender composition of apartment buildings residents. According to the authors, gender indicators must be developed on a micro-territorial level, which allowed a higher depth in qualitative aspects. The scale of assessment of these indicators is the neighborhood, as space next to houses and the main stage where daily life unfolds.

The following gender groups of beneficiaries have been determined in the use of the near home area:
- adults (moms, dads, grandparents, etc.) with preschool children (under 6 years);  
- children up to 3 years;  
- boys and girls of preschool age (age 3-6);  
- boys and girls of primary school age (age 6-12);  
- young people (boys and girls age 18-35);  
- adults (men and women (36+));  
- residents and residents of the «third age» (pensioners);
As well, regardless of age, residents of apartment buildings can be distinguished on following groups:  
- family (residents – female and male), who have their own vehicles;  
- family (residents – female and male), who have pets (dogs);  
- residents – female and male of low-mobility (people with disabilities, parents with children in strollers).  
Despite the fact that each social group has its own needs and expectations in the improvement of the near home area some criteria that are important for all can be highlighted:  
1) security (lighting, house signs, no stray animals);  
2) the conditions for cultural, social, leisure sports (developed infrastructure of children playgrounds, sports fields, benches and (or) gazebos for board games, etc.);  
3) ecology (equipped areas for collection of solid waste, «green» areas, flower beds, insulation, space for dog walking, etc.).

«Specific» indicator (specific to a particular group of beneficiaries) are presented in Table 2.

<table>
<thead>
<tr>
<th>Gender group of apartment buildings residents</th>
<th>Elements of the assessment of neighborhood</th>
</tr>
</thead>
</table>
| 1. Adults (moms, dads, grandparents, etc.) with preschool children (under 6 years) | - The possibility of a comfortable stay in the territory of children's playgrounds (presence of benches for adults);  
- Protection (disinfection) of sand in children's sandboxes;  
- Zoning (clearance, fencing) of children's playground area from sports playground, the roadway, etc. |
| 2. Adults with children of primary school age (age 6-12) | - Safe use of courtyard paths/ playing fields for roller skating, biking, drawing on the asphalt, etc.  
- Safety of playgrounds for a team (football, volleyball, relays) of and pair games (badminton, - table tennis). |
| 3. Children up to 3 years | - The ability to use multi-functional children's playgrounds in different seasons. |
| 4. Boys and girls (age 3-6) | - The ability to use multi-functional children's playgrounds in different seasons;  
- The availability of use of courtyard paths / playing fields for roller skating, biking, drawing on the asphalt, etc. |
| 5. Boys and girls of primary school age (age 6-12) | - The availability of playground for team (football, volleyball, relays) of and pair games (badminton, table tennis);  
- The availability of courtyard paths/ playing fields for roller skating, biking, drawing on the asphalt, etc. |
| 6. Teenage boys and girls (age 13-17) | - The ability to use the sports facilities at different times of the year;  
- The availability of playground for team (football, volleyball, relays) of and pair games (badminton, table tennis);  
- Availability of Wi-Fi Zone;  
- Accessibility to the «platform of creative expression and social interaction» (eg, garden, pavilion). |
| 7. Young people (boys and girls age 18-35) | - The ability to use the sports facilities at different times of the year;  
- Availability of Wi-Fi Zone;  
- Accessibility to the «platform of creative expression and social interaction» (eg, garden, pavilion). |
| 8. Adults (men and women (36+)) | - Dominated by «common indicators»: security; conditions for cultural, social and sporting leisure, ecology. |
| 9. Residents and residents of the «third age» (pensioners) | - Accessibility to the «zone of quiet rest»;  
- Free access to all areas of territory. |
| 12. Residents – female and male of low-mobility (people with disabilities, parents with children in strollers) | - The accessibility of area for temporary and placement their own vehicles. |

The level of «compliance» («friendship») of near home area to certain gender groups’ users (table 3) can be calculated through the determinant matrix (formula 1):  

\[ B = \begin{bmatrix} B_{11} & \ldots & B_{1r} \\ \vdots & \ddots & \vdots \\ B_{mr} & \ldots & B_{rr} \end{bmatrix}, \quad (1) \]
where $B$ – determinant matrix evaluation of the project beneficiaries; $m$ – number of beneficiaries groups; $x$ – number of indicators, which assess the project beneficiaries [21].

Table 3 – Matrix estimation improvement projects adjacent territories beneficiaries (residents of buildings)

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Adults with children</th>
<th>Children</th>
<th>Youth</th>
<th>Adults</th>
<th>Seniors</th>
<th>People with limited mobility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conditions for social communications</td>
<td>$B_{11}$</td>
<td>$B_{12}$</td>
<td>$B_{13}$</td>
<td>$B_{14}$</td>
<td>$B_{15}$</td>
<td>$B_{16}$</td>
</tr>
<tr>
<td>Conditions for recreation</td>
<td>$B_{21}$</td>
<td>$B_{22}$</td>
<td>$B_{23}$</td>
<td>$B_{24}$</td>
<td>$B_{25}$</td>
<td>$B_{26}$</td>
</tr>
<tr>
<td>Conditions for cultural leisure</td>
<td>$B_{31}$</td>
<td>$B_{32}$</td>
<td>$B_{33}$</td>
<td>$B_{34}$</td>
<td>$B_{35}$</td>
<td>$B_{36}$</td>
</tr>
<tr>
<td>Access to entertainment facilities</td>
<td>$B_{41}$</td>
<td>$B_{42}$</td>
<td>$B_{43}$</td>
<td>$B_{44}$</td>
<td>$B_{45}$</td>
<td>$B_{46}$</td>
</tr>
<tr>
<td>Conditions for creative expression</td>
<td>$B_{51}$</td>
<td>$B_{52}$</td>
<td>$B_{53}$</td>
<td>$B_{54}$</td>
<td>$B_{55}$</td>
<td>$B_{56}$</td>
</tr>
<tr>
<td>Security level</td>
<td>$B_{61}$</td>
<td>$B_{62}$</td>
<td>$B_{63}$</td>
<td>$B_{64}$</td>
<td>$B_{65}$</td>
<td>$B_{66}$</td>
</tr>
</tbody>
</table>

Such an approach could be the basis for a decision-making on the choice of options of public services improvement project (children’s, sports and play complexes, the park area, etc.). The inclusion of Gender Audit allows reveals/identify specific requirements of the beneficiaries to the projected area and creates a platform for the multi-criteria selection of the most gender-sensitive projects (Fig. 5).

Conclusions. Summarizing the foregoing, the following conclusions are offered:

1. Ukrainian urban planning on the micro-territorial level (spaces next to houses, as the main stage where daily life unfolds) is not included gender needs are not taken into...
account in the spatial design. There is a methodological problem of the incorporation of gender parameters into urban projects (architectural, infrastructural, and design).

2. Gender mainstreaming approach in urban project management is focused on the integration of gender equality in all stages of the planning process: from formulating the objectives to planning the measures and to implementing and evaluating them (design, implementation, monitoring, and evaluation).

3. It is necessary to develop a gender-sensitive framework and to experiment with cases of urban planning which might have a transformative impact on the beneficiaries genders practices. In particular, gender criteria and instruments for green landscaping, neighborhood design projects. Moreover, it is important to incorporate family friendly criteria and instruments in urban infrastructure for support of high-quality cross-generational and lifestyle.

4. The orientation at what is needed for a good life of all city residents entails the necessity of the integration of the gender perspective in every stage of the urban process. Gender mainstreaming approach in urban planning must be cross-cutting: from formulating the objectives to planning the measures and to implementing and evaluating them (design, implementation, monitoring, and evaluation). Thus, the integration of «gender indicators of quality of urban space» in municipal politics of Ukraine cities can be transformed to the «urban landscape» on the balanced combination of rights and opportunities for women and men to «equality living spaces of the city».

Also of note is the complexity of gendering evaluations of urban planning requires further elaboration of knowledge of urban project management.

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About the Author / Відомості про автора / Сведения про автора

Фесенко Тетяна Григорівна – кандидат технічних наук, доцент, Луганський національний аграрний університет, доцент кафедри будівництва та архітектури, м. Харків; тел.: (068) 918–83–78; e-mail: fesenkotatyana@gmail.com.

Фесенко Татьяна Григорьева – кандидат технических наук, доцент, Луганский национальный аграрный университет, г. Харьков; тел: (068) 918–83–78; e-mail: fesenkotatyana@gmail.com.

Fesenko Tetiana Grygorivna – Candidate of Technical Sciences (Ph. D.), Docent, Luhansk National Agrarian University, Associate Professor at the Department of Engineering and Architecture, Kharkiv, tel.: (068) 918–83–78; e-mail: fesenkotatyana@gmail.com.

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О. В. Сидорчук, Р. Т. Ратушний, О. М. Щербаченко, О. М. Сіваковська

СТРУКТУРА ПРОЦЕСУ УПРАВЛІННЯ КОНФІГУРАЦІЄЮ ПРОЕКТІВ

Аналіз стану питання свідчить про недостатнє розкриття процесу управління конфігурацією проектів, яке має варіаційне значення у забезпеченні їх успіху. Структуру процесу управління конфігурацією проектів розкрито на основі системного підходу. Виділені дві системні складові проектів – проектно-технологічну та організаційно-технічну (управлінську). Розкрито сутність узгодження чотирьох основних процесів управління конфігурацією, які відбуваються в проектах. За допомогою наявних знань відбувається розкриття структури процесу управління конфігурацією проектів.

Ключові слова: управління, проект, конфігурація, продукт, ресурси, проектно-технологічні структури.

Аналіз структурних зв'язків свідчить о недостатньому розкритті процесу управління конфігурацією проектів, який має розкриття значення в забезпеченні успіху. Структуру процесу управління конфігурацією проектів розкрито на основі системного підходу. Виділені дві системні складові проектів – проектно-технологічну та організаційно-технічну (управлінську). Розкрито сутність узгодження чотирьох основних процесів управління конфігурацією проектів. За допомогою наявних знань відбувається розкриття структури процесу управління конфігурацією проектів.

Ключові слова: управління, проект, конфігурація, продукт, ресурси, проектно-технологічні структури.

The accomplished analysis of scientific publications and research shows the deficient disclosure of the process for Projects Configuration Management that has the conclusive meaning of their success. There has been used the system approach for the disclosure of the process structure for Projects Configuration Management. There have been sign out two typical parts of projects – project and technological, and organization and technical (management). The essence of four main processes, which are in projects, has been discovered. They are Product Configuration Management, Project Configuration Management, the forming of product configurations, the forming of configurations for material and technical and energetic resources. There have been determined process models of Product Configuration Management and Project Configuration Management. Connections which are in the process of the concordance models for project and technological works with product configuration models, and configuration models of project and technological structures and material and technical (energetic) resources with models of appropriate works, have been discovered. Configuration bases of products, the configuration of project and technological structures, and the configuration of material and technical and energetic resources together with connections which provide their management, form the process structure of Project Configuration Management.

Keywords: management, project, configuration, product, resources, project and technological structures.

Постановка проблеми. Успіх проектів зумовлюється якісно управління ними. Сфери знань з управління проектами дають змогу системно забезпечити знанням відповідний процес і домогтися таким чином успіху проектів [1]. Однак, стандартизація цих знань відбувається без розгляду продукту, який формується, змінюючи його цілі іншим проектом. Водночас, як переконує практика, продукти суттєво впливають на процеси управління проектами. Щоб врахувати цей вплив розробники стандарту з управління конфігурацією проектів дійшли висновку про потребу синхронізації цього управління з процесом управління конфігурацією продуктів [2]. На жаль, у цьому стандарти лише забезпечують потреба до такої синхронізації, без розкриття наукових та методичних підстав її здійснення. Таким чином, сьогодні в наукці з управління проектами існує проблема узгодження конфігурації продуктів та їх проектів.

Аналіз останніх досліджень і публікацій. Процес управління конфігурацією продуктів є стандартизованім і використовується у системах менеджменту якості виробництва в різних економічних галузях [2]. Він є важливим також для забезпечення якості управління проектами, а тому питання управління конфігурацією продуктів у проектах різних прикладних структур важливе. В результаті цих досліджень, слід зазначити, що вони, на жаль, не можуть дати відповіді на низку запитань, які